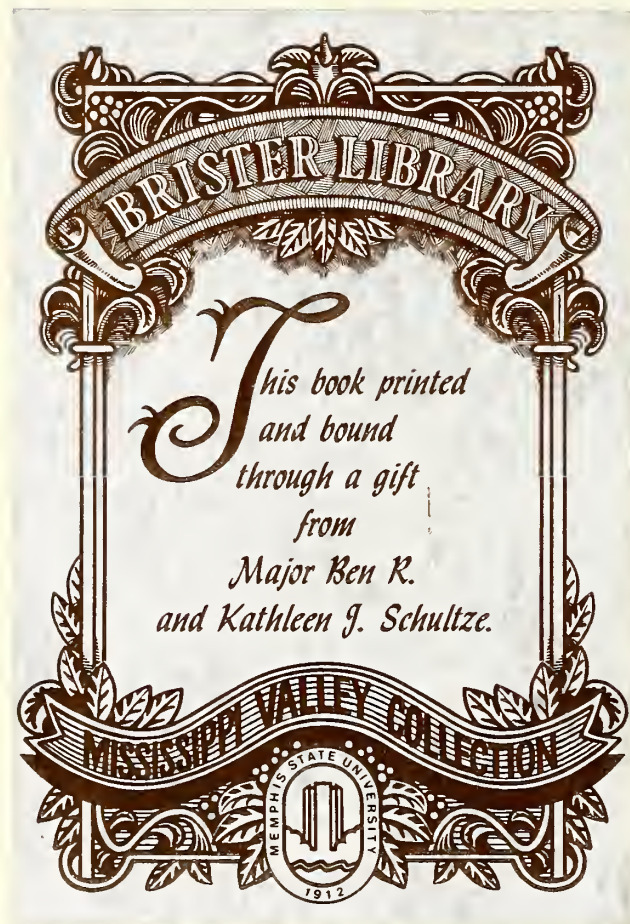


ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY
INTERVIEWS WITH
DR. WILLIAM COLE

BY - CHARLES W. CRAWFORD
TRANSCRIBER - BETTY WILLIAMS
ORAL HISTORY RESEARCH OFFICE
MEMPHIS STATE UNIVERSITY



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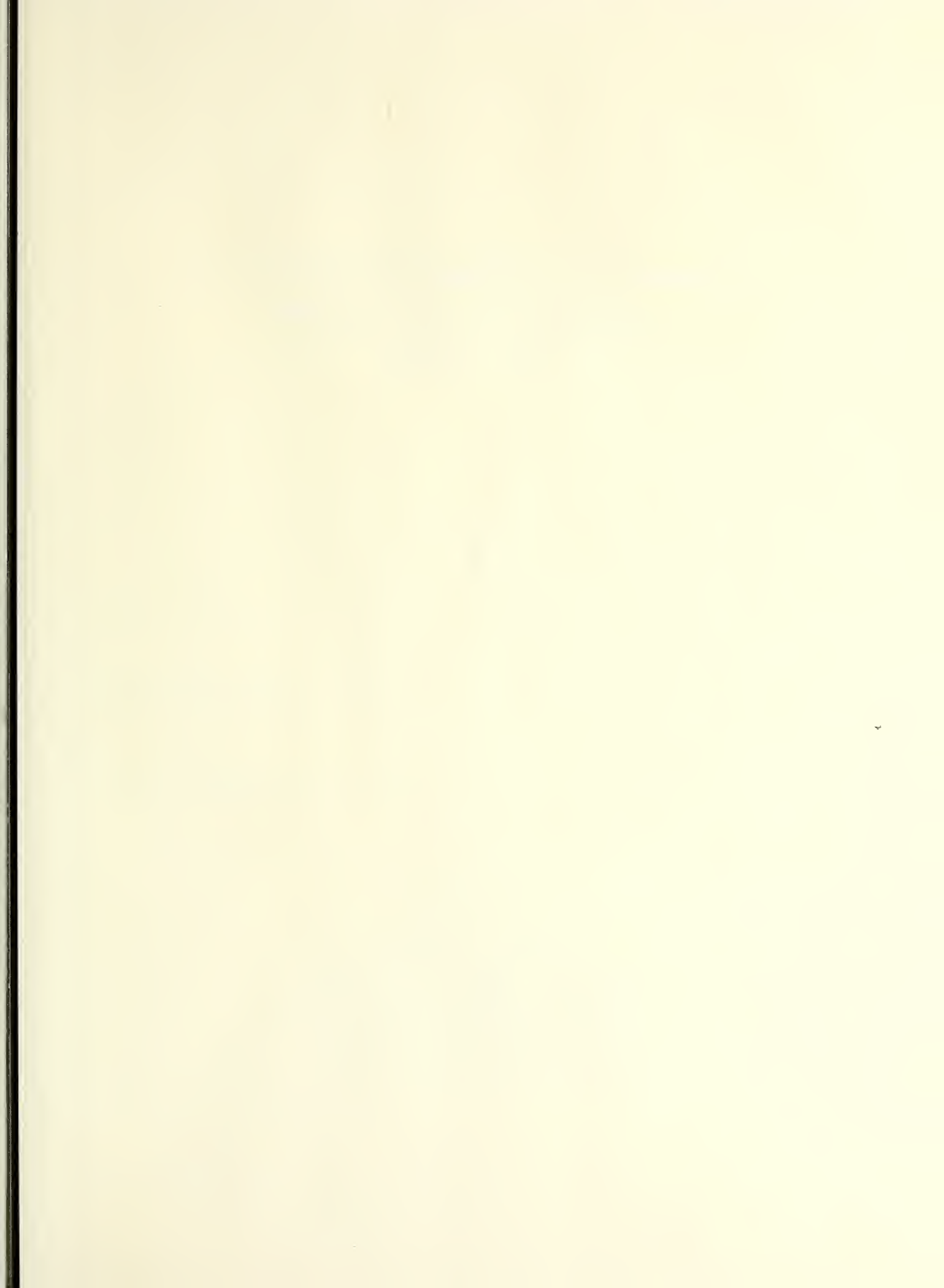
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INTERVIEWS WITH DR. WILLIAM COLE

APRIL 27, 1972

BY CHARLES W. CRAWFORD

TRANSCRIBER - BETTY WILLIAMS

ORAL HISTORY RESEARCH OFFICE

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PLACE Knoxville, Tenn.

DATE April 27, 1972

Dr. William E. Cole

(Interviewee) DR. William E. Cole

Charles W. Crawford

(For the Mississippi Valley Archives
of the John Willard Brister Library
of Memphis State University)

THIS IS A PROJECT OF THE ORAL HISTORY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. THIS PROJECT IS AN "ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY." THE PLACE IS KNOXVILLE, TENNESSEE. THE DATE IS APRIL 27, 1972. THE INTERVIEW IS WITH DR. WILLIAM COLE. THE INTERVIEW IS BY DR. CHARLES CRAWFORD, DIRECTOR OF THE MEMPHIS STATE UNIVERSITY ORAL HISTORY RESEARCH OFFICE. TRANSCRIBED BY BETTY WILLIAMS. INTERVIEW I.

DR. CRAWFORD: Dr. Cole, I suggest we start with some basic background information about you. I suggest we start with time and place of your birth, any family or early life information that you wish to put on the record and something about your education and experience prior to your first contact with TVA.

DR. COLE: I am a native of Johnson County, Tennessee. Born July 28, 1904. My people were English in origin--the Coles coming to this country during the reign of James I. Both my parents had a Virginia background. I was graduated from the University of Tennessee in 1926, Cornell University in 1930 with a Masters Degree and Ph.D. Degree in sociology. I came to the University of Tennessee in 1930 to teach sociology and have been here in various capacities since then, largely in the Department of Sociology, having been head of the department for some thirty years. I was away twelve summers teaching at Cornell University and George Peabody College and the University of North Carolina. My only paid contact with TVA was that I was on leave in various capacities there

during and prior to the period of World War II. I was on leave for a period of about two and a half years. I have served as one of the Appeals Judges in the settlement of labor disputes with TVA. We served, of course, after various appeals have gone through the regular offices of the departments and the Personnel Department of TVA. So I served in that capacity for some time and have been paid for that kind of service.

DR. CRAWFORD: Let's get some information if we may, Dr.

Cole about your first contact with the Knoxville area after your education was completed. Dr. Cole, when you returned to Knoxville in 1930, that I believe was in the beginning of the Depression, can you give a description of the Valley area as you saw it then before the coming of TVA?

DR. COLE: Well, the Valley area at the time that TVA was established was, of course, one of a low income area. It was part and parcel of the South, which in the 1930's was dubbed the nation's number one economic problem. There was tremendous unemployment. For instance, in my own county which had never known unemployment to any extent people were out of work and during the early days of the Depression when various works projects were developed these people flocked to those in great numbers. I'd been brought up in the mountains. The mountains had been pretty well slashed. The pine was first cut and then the chesnut wood was cut and then, of course, we got into the hardwoods. The mountains were systematically burned. When the winter came, the spring flooding was almost universal throughout the Valley. The area was in low economic status. I

think I can describe it by a statement that former Mayor Dempster made who was one of the great supporters of TVA. What he said was, "When TVA was established you could ride along the streets of Knoxville or the main street called Gay Street and shoot a shotgun into any front store door without killing a customer." And I remember when the news came out that the Tennessee Valley Authority had been approved by the Congress and the bill signed by the President, almost immediately work started on Norris Dam which was the first TVA dam to be built. I remember going with Ben Stong, editor of the Knoxville News Sentinel out to the dam site and looking over the work that was beginning to take place then. What I am saying is that the news of the pending development of the Tennessee Valley Authority was one of those things that really created a tremendous excitement in the area. We had here in Knoxville during the Depression a barter program. People would bring things to barter for other things. The great problem was that people would bring furniture, chairs, tools to barter for food. We simply did not have the food. This was the status of the region, I think, at the time. We were kind of the lower end of the totem pole.

The first relief came in the general area of Norris reservoir when they began to clear the area for flooding.

DR. CRAWFORD: You were in an excellent position, I think, to be an observer of what happened at this time. What changes did you start noticing and when did they appear after the arrival of TVA?

DR. COLE: There were two or three things that were very noticeable. One was the creation of new jobs in and around Norris Reservoir. This was one of the first

things. Another was the establishment of the TVA offices in Knoxville. The third thing was the almost immediate decision of the TVA Board to build a construction village at Norris which it would hope would liquidate itself in the improved morale and the improved work of the personnel who would be employed in Norris Dam. I remember this very distinctly because Roland Wank was brought in as one of the regional architects who helped plan the town of Norris. And Earl Draper was also a regional architect who had been brought in to help develop the town. Earl Draper had previously laid out the city of Kingsport and had previously laid out our Sequoyah Hills section here in Knoxville which was one of the better sub-divisions which we had had.

Another thing that happened, of course, as works progress was made available, TVA in cooperation with the Works Progress Administration began to develop projects which would put these people to work. I remember myself that I served on a works progress committee here. I had allocated to me a number of white collar people who would work on white collar projects. And in addition to that the Civilian Conservation Corps as it was set up, TVA had a fantastic program of tree plantings[and]conservation projects of one kind or another. Then of course, an activity that took place very quickly was the buying of land at the dam site that was for the beginnings of the development of the dam.

Another thing that happened there was great concern over grave removal. There was great concern over whether or not these people would be uprooted from the Norris Dam area and I think it was good news when TVA announced that it had developed in cooperation with

with Land Acquisition Division of the Department of Justice a land purchase policy which they felt would be superior to one that the federal government had then. This would not only involve the training of land appraisers by the federal land banks, but also with the set up in the District Courts a committee on review who would try to arbitrate cases of dispute where the Land Purchase Division of TVA could not reach an agreement with the land owner of the property.

Another very good piece of news was that TVA announced very early that they had formed an agreement with the land grant college here at the University of Tennessee to work with their own personnel in the relocation of people from the Norris Basin in helping them find farms and other kinds of property that they wanted to go to.

Another thing that was announced, because there was a great concern for the dead who lived in these valleys, was a sympathetic grave removal program by which TVA had agreed to relocate the cemeteries, reset the stones, move the bodies, and do this in cooperation with the morticians--undertakers of the Valley.

Another thing I think that was announced very early, and I remember being in on this, was that there was concern over the loss of the Indian Mounds and the loss of the knowledge of artifacts and so forth of the Indians that had at various time occupied parts of the Tennessee Valley. Then as I recall an interesting man from Kentucky, a professor of physics, Professor Webb entered the picture. He was an amateur anthropologist, although he was a physicist and worked out an agreement with TVA whereby Works Progress people, any unemployed peo-

ple, would be used to excavate the Indian Mounds and the knowledge and the artifacts and skeletal remains and so forth of the area would be divided among the land grant colleges of the area and also the museums of the national government and regional museums. This was done very early even before TVA was officed here in Knoxville. We had had a project--I think it was financed by the Social Science Research Council with Professor Tom Wooster who was a demographer from the University of North Carolina in charge of it. The purpose of which was to do some basic research on the people of Valley and their conditions and this was to become a kind of a bench mark from which change and development could be charted. It looked that this would go very well until we began to take schedules from residents of Norris Basin. These schedules contained some personal information and some of them fell into the hands of Congressman Will Taylor, who was congressman from the Second District and who lived at LaFollette, Tennessee as I recall. He raised an awful lot of concern over this thing. To my mind it scared TVA pretty much away from this kind of project.

DR. CRAWFORD: Do you remember what year that was, Dr. Cole?

DR. COLE: I would think it was about '33 or '34, but

I can not recall exactly. I think we did need bench mark research from which TVA could have charted change. I think that this could have been a good thing.

Another thing that was very badly needed and I think it is a matter[of] regret as I look back on TVA and the building of the Norris project, and that was that we should have had a follow-up of these families and property owners who were removed from the area. This was never

systematically done. TVA felt it was the job of the land grant colleges to do this. In fact, a great many of the records which were obtained from the family removal projects were given to the University of Chattanooga even before the time that the University of Chattanooga had any research program to utilize these records. And I think this was a mistake. I think they should have been deposited in one of the schools that had developed some research activity where these records might have been researched. I think this really was a mistake. I think TVA's Land Removal Policy was a sympathetic one. I think it was a fair one and I think it was an excellent one in the light of the usual policy of the federal government which was to make an offer and to condemn. In the case of Norris Dam, which was three years in the building as I recall, the condemnation of the land and property fell below 3% of the parcels. I could be wrong on this, but it was substantially this. In case of Douglas Dam, which was controversial, it had to be built in about a year. The President of the University, Dr. Hoskins took a stance against it, Senator McKellar took a stand against it primarily, I think, because the TVA Directors hadn't gotten to Senator McKellar to get his support before the opposition got to him. In that case condemnations were 7 or 8%.

But I think the Land Acquisition Policy of TVA has been an excellent policy. You, of course, can't pay a man for uprooting him from his community. You can pay him a good price for his property and you can help him get located in another community. In fact, to me it has been part of TVA's policy that has influenced the whole field of assistance in the urban renewal projects and public housing projects which we've had in the cities. I think they profited a lot from the

experience of TVA.

DR. CRAWFORD: All of this you observed through the 1930's, Dr. Cole, Did you have any active part in TVA's work at that time before World War II?

DR. COLE: No, not much. I observed it. I do recall about the first year or two after TVA was developed John Newton Baker and I wrote an article on "Harvest Time in the Valley" which was published by the Sunday supplement of the Philadelphia Inquirer as I recall, in which we tried to point out a few of the changes and the growth of optimism and so forth which had gone on in the Valley in the short time that TVA had been established.

I had no official connection with TVA at the time. There were various committees which were formed. I served on some of these including a committee on personality and culture, including a local WPA committee in which we were trying to get works progress committees, but I had no official connection with TVA at all in those early days. I was interested in TVA, because during the Depression, Hugh Price Crow, who was an instructor here in the department, and I wrote a book called, Recent Trends in Rural Planning, in which we were very interested in the regional aspects of TVA land settlement, land conservation and those things. I think the content of this book was influenced partly in experience and knowledge in what was going on in TVA. I knew intimately--not intimately--but on a first name basis a great many of the early employees of TVA, including H.A. Morgan, who was a member of the Board who brought me here, and Dave Lilienthal. Dr. A. E. Morgan was a bit hard to get acquainted with. I was never very close to him, but I knew Gor-

don Clapp, Floyd Reeves and people like that who were very interested in TVA.

I had another experience that made me very much interested in TVA's personnel policy as it was developed. I have been greatly interested in Social Security Act enacted during the Depression. The setting up of the Social Security Act helped set up the merit system here in Tennessee and obtained a great deal of support for merit systems from TVA's personnel policy. This thing was masterminded by Floyd Reeves who was Personnel Director, of course. It was so based on quality that if you wanted to not get a job with TVA in those early days what you did was to get some political support and if you got political support you wouldn't get a job. It was a very delightful thing to see this kind of personnel policy develop in a regional agency working in the southern situation where you knew we for a long time had been subservient to the political leadership of one kind or another.

DR. CRAWFORD: What did you think of the quality of TVA personnel during that time? You became I know, acquainted with many.

DR. COLE: The quality of TVA personnel was excellent. They did an excellent job of recruiting.

It was a period of scarcity of jobs and therefore TVA had the advantage of a wider range in selectivity of personnel I think than it had ever had. It was true that a great many of the engineers that they brought in were people who had previous experience with Dr. A. E. Morgan in his engineering activities. It was also true that in Agriculture and Fertilizer a substantial number of the people who were brought in had been people President H. A. Morgan had worked with here in Tennessee in the

College of Agriculture and in the South in agricultural activities. To a lesser degree Dave Lilienthal brought in some people who had worked with him in Wisconsin around the Chicago area, but by and large not very many. The quality of the personnel was excellent.

Believe it or not one of the most interesting things that happened in those early days was the upsetting of the maid market in Knoxville, Tennessee. When TVA came here good Knoxville families were paying, I was told, their maids as low as \$4 a week and TVA came in and these people had good incomes for the time and they wanted maid services and they took a great many of the maids away from Knoxville's first families and probably the first enmity in this community was created by the housewives who had lost their maids. This was literally one of the first impacts of TVA in this community.

DR. CRAWFORD: How was TVA generally received by the citizens of Knoxville other perhaps than this difficulty with the maids?

DR. COLE: TVA was warmly received, but this of course, was traditionally a Republican area. This of course was true in the First Congressional District, but it was received I think, on the basis that it was a good thing economically for the region by people who later became very critical of President Roosevelt and his administration. I've seen the time when a crisis situation would develop where these people who had no use for the President and openly expressed it would come to the support of TVA. I might say also that in the Second District where the Congressman has always been Republican as far as I know, TVA has had good support from the Republican Congressman. This was true during the days of Howard Baker

(Sr.) and it is true now during the days of John Duncan. There were murmurings of discontent in the construction community as TVA would set up a bargaining process with Tennessee Valley Trades and Labor Council. As they would come out with new wage rates and so forth there has always been a considerable[amount of] bellyaching among the construction people of the Valley--the private construction people against the TVA rates, you see. But what I am saying is TVA was well accepted. These people who would come in from other regions also worked themselves well into the community and picked leadership roles and they became important supporters of the schools and community activities. A great many of them were well educated people, they were cultural people, they found a way into music roles, art roles and so on here in the Valley area. I think they made a tremendous impression upon the Valley.

I might say this--in spite of all that TVA has done for our agriculture, and particularly for the fertilizer industry, and in spite of the fact there was heavy subsidizing of college of agriculture budgets in the Valley, I think the colleges of agriculture in the Valley states were oftentimes pretty slow to warm up to the TVA's agricultural activities. And I think that was particularly true of our own College of Agriculture (University of Tennessee) because it was perhaps involved more in the early days of TVA than any other of the colleges of agriculture. I attribute a good deal of it to just a first class case of jealousy on the part of the colleges of agriculture. What I am saying, I guess, there was support; it was pretty cool kind of support. And I think it was the support that was oftentimes covered by money on the barrel-head--that is what I am saying.

DR. CRAWFORD: Do you think the relationship was one of rivalry or was felt to be?

DR. COLE: Yeah, I think there was the feeling perhaps that TVA was preempting some of the roles in the colleges of agriculture. Particularly is this true in test demonstration[work]. I don't think it was felt that this was true in family removal because the colleges had no role in it, but in test demonstration work area it was particularly true.

I don't think it was true in the fertilizer field because here again the fertilizer experiment station work had been started back in England in the Rotham Set Experiment Station and the colleges of agriculture experiment stations were in this field and they found it quite exciting to get new kinds of fertilizer to develop. By the way, there was a real cool reception on the part of the fertilizer mixers, that is the mixing people, as the fertilizer program developed. The chemical people were strong for it because they wanted to sell more chemicals to the American farmers. The mixers were cool toward TVA.

We estimated in the early days of TVA that the farmers of the Valley were paying about \$15 a ton for an "ooo" fertilizer. This meant for Knox Dolomite which you could buy for probably \$2 a ton or \$3 a ton. The farmer was paying this much for mix you see, and he was buying fertilizer with low grade analysis of nitrogen, phosphate and potash, and was paying through the nose for this. When TVA began to release for experiment purposes high analysis fertilizers [it was] coolly received by the mixers. The utilities too, I think, coolly received TVA before their system was purchased.

You see we never lived under a good utility. The old Tennessee

Public Service thing was a utility that had poor service and high rates; the stock was well-watered. You build a farmer a line--you charged him maybe \$200 times \$400 for a pole--you'd run a line out to his house, you'd put the meter on the front porch and the damn current was so high that all he could do would be to put a 25-watt bulb in his living room: Now that was the situation we were living under. But the interesting thing was that when TVA developed and bought out the systems, the REA's were established. You had to turn to the private utilities for personnel to man the stations. These people shifted over and did a remarkable job in accommodating themselves to a public power complex and public power system. It was a tremendous to see this kind of transformation.

DR. CRAWFORD:

Why was organized agriculture slow to accept TVA? It seems to me that with one of the original three directors, Harcourt Morgan, with his connections in Valley agriculture the relations should have been good.

DR. COLE:

They were good, I think, considering the fact that TVA was interested in a lot of new fields. H. A. Morgan stood very well in the South. I think it was purely jealousy on the part of the leadership in the colleges of agriculture of a public regional development, conservation, agricultural, fertilizer agency. I think it was just beyond the scope of most of their thinking. They had been used to working primarily on the state and sub-state basis and particularly in working in counties and through this, and I don't attribute it to anything except opposition to the general idea of a government agency in this field. I am sure that that whole attitude has been reflected towards other kinds of federal agriculture

programs.

DR. CRAWFORD: Of course, TVA had cut across some traditional lines of activity.

DR. COLE: Yes.

DR. CRAWFORD: Did TVA have to work hard to secure support from these departments of agriculture?

DR. COLE: I don't think so. It was from the beginning an organization of the land grant colleges which worked with them. I do think this that they had to spend a good deal of their own funds in order to get this support. But as long as the funds were coming from TVA into the colleges I think this support was given, although I think it was given half-heartedly in some instances.

DR. CRAWFORD: Then without the financial connection there would have been even less enthusiasm?

DR. COLE: Absolutely, there would have been I think. You see, TVA did another thing and that is they placed assistant county agents in a lot of these counties to work with the farmers, to work with family removal, and in addition to other family removal programs and to work with the test demonstration programs and the family fertilizer programs. That has enabled the colleges of agriculture to do the type of work and the depth of work that they would have been unable to do. The most that they could do in those days was to get the counties, and sometimes reluctantly to put a little money into one job and that was the County Agent's job and the Home Demonstration Agent's job.

By the way, another early impact, say upon the farmer, was this,

and on the farm community. This was tremendous, and that was the impact of TVA 's electric system itself. When TVA came here less than 3% of the farms had electricity. And today it is pretty much 100% as you know. The impact of rural electrification made TVA widely accepted by the rural communities. There was an early problem in those days with the high cost of electrical appliances. TVA got into this field to some extent and was instrumental in bringing the cost of transformers down and did something to develop other electrical appliances or have them developed. Now the thing I don't think we have ever known is to what extent of an economic advantage rural electrification has been. But we do know it has been a tremendous social advantage and tremendous community advantage. One of the amazing things with foreign visitors that come here is to the extent to which the farms are supplied with electricity--and the modern electric kitchen is just out of this world. I have an idea--well, I think it has had a great impact in a better diet of the people, a big impact in the preservation of food that we used to lose--like strawberries and things like that--and I think it has a tremendous effect upon community organization and making it possible to have stereo, motion pictures and things like that. I think it has been a great advantage.

DR. CRAWFORD: You have discussed some of the advantages of TVA to the area, are there any ways in your opinion which the arrival of TVA did a disservice to the Valley region or were there any problems brought by the arrival of TVA?

DR. COLE: I can't quite see it that there was. One

of the arguments against a regional agency like TVA is that (and there is in a real sense of the word) it imposes another level of government upon the people. I don't think this has been really a disservice because I think TVA's grassroots philosophy--which is one of trying to stimulate local and state government as well as local urban governments--has been an excellent thing. Now as you get into the war period when the emphasis was upon electricity for Oak Ridge and the industrial plants of the Valley, particularly Alcoa and so on, I think TVA retrogressed. By that I mean I think it went backward and became by a number of years very strictly a power agency. There was a little minor watershed development which was done during those days but I think it was kind of inconsequential. The test demonstration programs continued, fertilizer programs continued, and there was rather an extension of the fertilizer program to a world wide basis I think and this was a good thing.

But as I look back over that period when TVA began to build those steam plants then they got into the buying of coal. I think the strip-mining thing is a sordid story of TVA's life. I don't think it would have happened if we had had during the latter years of TVA the leadership we had in the early years of TVA. TVA started as a tremendous environmental agency I think. It certainly went all out for all aspects of the environment. It really lost ground during this period of steam plant building and strip mining of coal. There was really no excuse for it! We could have had standards from the beginning. The consumption of coal--the building of steam plants--really took the coal operators off TVA's neck and put them in the category of being their friend.

But it was not until the newspapers of Kentucky, led by people

like Caudill, and so forth, really goaded TVA into a coal acquisition policy which was an improvement over the old strip mining thing. In fact, during the days when I worked on their post-war plans, working with the departments in TVA, we had real plans then for the redoing of the strip mine scars and also utilizing strip mine scars for recreation, fisheries, and wild life and things of this type. This to me, if there is any aspect of TVA, reflected poor leadership. And I don't think it is justified by the demand for power and this kind of thing. Now I must admit during the current day of 1972 that environmentalists, a lot of them, are starry-eyed people. I used to shout birth control over the South prior to World War II and we had our own share of nuts, but the environment cause has attracted about as many nuts. Here you had a tremendous agency that could have done anything that it wanted in the way of conservation of resources that stooped to a pretty low level in the strip mining thing.

Another thing that I always looked to TVA for but I don't think they had many answers and that was the whole problem of Appalachian poverty. I think they should have had a lot of answers to it. The Appalachian Region Commission was established, and I don't believe they have many answers. Part of it was due to the fact, I think, that they had worked pretty much with large farmers, not the little man, in this general area. They were subservient to the Farm Bureau, there is no question about that.

DR. CRAWFORD:

And the Farm Bureau represented larger agricultural interests and more wealthy farmers

I believe?

DR. COLE:

Exactly. Much more than it does now be-

cause the Farm Bureau in order to get insurance and so forth have now formed among its membership a lot of little people, people who are hardly farmers at all, and has attracted this group. But in the days when TVA was developing, Ed O'Neil himself was head of the Farm Bureau [and] was an Alabama cotton farmer and I think was subservient to this.

DR. CRAWFORD: Do you think part of that failure to deal with Appalachian poverty and the identification instead with wealthier agricultural interests was due to Board influence of Harcourt Morgan rather than A.E. Morgan?

DR. COLE: Ask me again that question, Dr. Crawford?

DR. CRAWFORD: Do you think that Arthur Morgan's policy was more to deal with the Appalachian poor and Harcourt Morgan's policy more with established agricultural interests?

DR. COLE: I don't think it was in the days when Arthur Morgan was Chairman of the TVA.

I don't think he had any more interest in the Appalachian poor than H. A. Morgan had or that Dave Lilienthal had, and I don't think either of them had it. This was an interest that developed in Dr. Morgan--his interest in community and the poor after he left the chairmanship of TVA and after he returned to Ohio to work in his community activities. Then he became really concerned about the condition of the poor.

DR. CRAWFORD: Perhaps his later concern was based in part on what he observed while with TVA.

DR. COLE: Yes, I think it was. Also I think in the

case of H. A. Morgan we couldn't be too harsh on him because after all he had to work hard with the power structure in the state of Tennessee to get support for the University and he realized that his best support lay in the Farm Bureau and the larger farmers which it represented, you see. Of course, I have always felt that the scope of David Lilienthal's philosophy was so broad and constructive and so social that it involved a corporation of interest of the poor within it, but I think Dave was so busy during the building of a power structure here and a regional development agency here in TVA this phase of it didn't rub off on him very much. I think this is a kind of thing that he developed after he left TVA and began to work with Valley Development Programs in the Middle East and then South America and then in the Far East. I believe if you will trace through the Lilienthal's Journals you can see a metamorphosis in the poor creeping out towards latter times.

DR. CRAWFORD: Was anyone concerned with the problem of
Appalachian poor in the early days of TVA?

DR. COLE: Yes, there were. In the early days of TVA they had an Industrial Division, and Howard Emerson is currently living. Howard had a lot of contact with this. What they tried to do was develop machinery for the small farmer, things that could be used on small land holdings. They were also interested in development of industrial jobs for the people of the Valley. This thing was later phased out, feeling I think, that it was perhaps against the existing federal policy then to keep the small-sized family farm alive when there were trends in the other direction favoring the larger, more economical

operation. I think also that there was a feeling as TVA got into the power era that the responsibility for the development of agricultural jobs was a state responsibility and that they should throw their support to the state. I think that this was a loss of opportunity on the part of TVA to do something particularly for the small farmer and for the mountain person.

There was another thing that was to me a disappointment that might have done a lot more. In the early days of TVA there was wide hope that you could do great things in conservation with the public school systems of the Valley. And at one stage I believe they called the Commissioners of Education together to try to develop some kind of joint program of conservation education for the students of the Valley. For reasons I do not know, this thing rather folded, but there were people in TVA like Dick Neihoff and others who kept the conservation thing alive. But what I am saying is that I've always felt that you needed in TVA some organization of the education commissioners of the Valley states which would parallel to the organization which we had of the land grant college people. The latter would have worked in the field of conservation and education and ways and means of improving education among the people of the Valley as well as conservation education. We had a tremendous laboratory here which has just never been used in conservation education.

DR. CRAWFORD:

As a matter of fact never really been developed.

DR. COLE:

No. And it is not too late yet and it could

come into its own in this era of ecology because TVA has tremendous know-how in the field of water conservation, and the control of water, forestry, soil conservation, fertilizer. They have tremendous know-how in this field. They have forgotten more about water pollution than a great many agencies and a great many people know at the present time.

DR. CRAWFORD: But isn't it a loss that they have forgotten it?

DR. COLE: Yes. They have forgotten for instance, the air pollution thing. I think they will have trouble with breeder reactions in the environmental thing. I do rather think that perhaps nuclear power may make both the water system of hydro-electric power obsolete in which we would keep the stations no doubt running--probably have to. We'd have to keep the dams there for navigation. But it will probably also make the fossil fuel steam plants obsolete also.

DR. CRAWFORD: I have suspected that that should be done.

DR. COLE: Which would mean perhaps that our coal industry will have to be nationalized and the coal deposits held in perpetuity for the generations to come for purposes other than steam plants.

DR. CRAWFORD: Can you tell me something about Howard Emerson's work--his position and ideas?

DR. COLE: Howard Emerson is still living. He's a very socially-minded man. He worked in various administrative positions. He was instrumental in practically

every aspect of TVA--personnel policies, retirement policies, conservation work, industrial development particularly in industrial development. I think he knows that story very well. Then he came over to the University of Tennessee to be a professor of industrial engineering. He is still living in this community and has a great deal of knowledge--he and Harry Wiersema--about the early days of TVA. A very socially-minded person with a lot of wisdom.

THIS IS A PROJECT OF THE ORAL HISTORY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. THIS PROJECT IS AN "ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY." THE PLACE IS KNOXVILLE, TENNESSEE. THE DATE IS APRIL 27, 1972. THE INTERVIEW IS WITH DR. WILLIAM COLE. THE INTERVIEW IS BY DR. CHARLES CRAWFORD, DIRECTOR OF THE MEMPHIS STATE UNIVERSITY ORAL HISTORY RESEARCH OFFICE. TRANSCRIBED BY BETTY WILLIAMS. INTERVIEW II.

DR. CRAWFORD: Dr. Cole, I suggest we get some information now about your experience with TVA during the 1940's.

DR. COLE: As I recall, I went with TVA to work on their post-war plans. There was a feeling that after World War II that there would be a great period of unemployment and that all kind of work projects would be necessary in order to take up the slack in the labor market, and that TVA was in excellent position to develop and make projects and make use of excess labor personnel as they had during the Depression. I worked with the departments of TVA in getting out information on post-war development. These had to do with construction projects, development projects, conservation projects, fish and game development, anything that might give employment opportunities to people and round out in a broad kind of way the work that TVA was doing. I remember one of the things that we worked on particularly was the healing of the scars of the strip-mined areas.

Not what TVA had stripped or TVA's coal--seller's had stripped, but had been stripped in the general area of the Southern Appalachian region. We had all kinds of projects. Whatever projects we had were those which the departments felt would be important in post-war development. Well, of course, this post-war depression never occurred. We got into a cold war with Russia and this gradually required resources of one kind or another that we had. We had the growth of the nuclear power business here in the Valley which required a great deal of power. So these post-war plans were simply nice plans to have on file, but they never developed.

Well, that was one phase of my work with TVA and another phase was that I was asked to come in and head up a program called "Program Review and Analysis". Finally I think my title was the chief of "Review and Analysis" at one time. And it was our job to analyze the effects of soil conservation program--particularly the area of test demonstration program--the individual farm demonstration programs utilizing TVA's thoughts. We had area test demonstrations all over the Valley and we had individual farm demonstration projects all over the country. I don't believe we had any foreign countries. And [we had] in general to do work on testing the feasibility and the results of TVA's fertilizer program as expressed through the demonstration program.

This thing was not easy. What TVA had done was to tell the individual colleges of the region that they could keep whatever records that they felt were necessary to test the results of TVA's Farm Demon-

stration Program and its fertilizers and this meant that we had a lack of uniformity of records which made it impossible to do a very good job. We were able to bring together several hundred, in some instances a thousand or more, test demonstration farms and get some results. While I have been a strong supporter of the Grass-roots approach to regional development, I did have a feeling here that TVA could have required of the land grant colleges more standardized information than they did, this standardized information being necessary for the adequate testing of the fertilizer program itself. This I think, was one of the basic weaknesses in the Grass roots Program. I do think that other aspects of the program were extremely valuable and that is where what the farmers sell would decide what kind of agricultural program that they would develop for their particular communities.

I think that this was an excellent thing. I felt we did a great deal of good in this program, but I felt we never had the basic information with which to do a really bang-up job. We, of course, had plenty of information to go on in the growth rates that have resulted from the application of improved fertilizers and so forth. But I never felt we had enough basic information on the farms themselves to bring together a real adequate numerical picture of what had resulted from the changing farm practices in the Tennessee Valley. We did find, I think, that TVA had done a pretty good job--and the land grant colleges of course always shared in this--of teaching farmers of the Valley to farm steep lands whereas they had been useless before the dams were impounded in farming flat lands.

I always felt that we should have had more demonstration programs in irrigation in the Valley. There are periods in the Valley in the

summer, July and August particularly, when certain sections are short in their water supply and my own feeling here is that from the reservoirs we had adequate water supplies that the land grant colleges needed to get into this area of irrigation much more than they have.

We found ample evidence in the forestry field of the results of TVA's Forestry Program. We found for, instance, a lot of farms in the Valley had developed what they called sustained yield programs in which the cut was about equal to the take each year or which the cut from the timber was less than the cut--this giving you a sustained yield of forestry products. This was not just true of farm forestry tracts, it was true of some of the big industrial tracts of the Valley.

Another aspect of the work that I did was to see the ever increasing enlargement of TVA's fertilizer program to reach other countries. TVA was pretty wise in a lot of the things that they stressed here. The great shortage was in phosphates and TVA, because of its use of electrical furnaces, showed how high analysis fertilizers could be produced in the western phosphate region and how there could be made available to the corn belt and other regions. Then later on these high analysis fertilizers could be made available to the rest of the world. Potash was always in short supply during my tenure with TVA and now, of course, rather rich resources of potash have been found. We always stressed for fact that nitrogen existed above every acre of land and this could be brought down through legumes. This was a kind of exciting thing to get into. Later on, of course, TVA developed buffered fertilizers which were gradual release fertilizers, and these were used greatly in the rice industry in Vietnam and elsewhere.

I think the Fertilizer Program with TVA is one of the most exciting things that TVA has ever done. This has been completely in cooperation with the fertilizer industry and with the chemical industry and has been a great tribute to TVA. I rather think that one of the reasons why David Lilienthal left the AEC was that he was a little disappointed with the extent that AEC was willing to share its atomic secrets with the private sector of the economy. This was a thing that he had helped to fully develop with the fertilizer industry in TVA.

Well, all I am saying is that Program Review and Analysis was a fine experience for me. I think we did some good for TVA, but we would have done much better if we had had more substantial data for the Valley as a whole--more uniform data with which to work. The fact that TVA had not asked for such data to be developed, I think, was really an indication of short insight on the part of TVA and one of the places where the grass roots was a little closer to the grass roots than it should have been, which was a matter of self determination on the part of the colleges of agriculture. That was what data they should have collected for themselves and which data they should require the farmers and others who utilized the products of TVA. Is that around the point?

DR. CRAWFORD:

Yes sir, I think that it is very much. In regard to your decision to leave TVA and return to the University of Tennessee, why did you make the decision that you did?

DR. COLE:

Primarily because I really was disappointed in the extent that I felt that Mr. McAmis,

who was my boss, wanted information about the agriculture program in the Valley and the extent to which these people wanted information. I thought they were administering the agricultural program and the test demonstration program kind of on the basis of hunches and that they actually did not want to be supplied with the facts. I don't think this is an unreasonable assumption and another reason I left was because I wanted to come back to teaching. It was always my plan to return to the University. I had some strong feelings about it because my salary decreased from about \$8600 to about \$5000 when I did return. It took me a long time to make up this difference in salary differential.

DR. CRAWFORD:

What did you think about the influence on the Agricultural Division on TVA policy in general? Under Mr. McAmis, did you think that it exerted a great deal of influence?

DR. COLE:

Yes, I think it did. There was close cooperation between Fertilizer Production and Agriculture Program. I think there was substantial feeding back and forth of information between TVA and Fertilizer Production and Experiment Stations in the use of fertilizer. And, I think, of course, that the idea of the test demonstration program was pretty strongly imbedded in the TVA structure and later became strongly a part of the Experiment Station people, you see. Later on various facets of this began to develop with the development of nuclear energy and we got into all kinds of aspects of nutrition. There was another way in which TVA's fertilizer program was reflected and that was in improved nutrition studies which the colleges of agriculture and the colleges' experiment stations carried on. A lot of this was with small animals but a lot of this was done with larger animals in time.

DR. CRAWFORD: How did the Agricultural Division get along with other parts of TVA?

DR. COLE: I don't know. It's a little hard to say, Dr. Crawford. I rather felt that agriculture ran its own show pretty much and was frequently not in very warm relationship with Land Acquisition, with Forestry, and with other aspects of research development in TVA.

DR. CRAWFORD: Why do you think Agriculture had this degree of independence in TVA?

DR. COLE: I think it was tied in partly to the Grass
Roots Philosophy that TVA felt strongly
that it had to have the grass roots support of the farmers of the Val-
ley and the only way you could get this was to work through your land
grant colleges.

DR. CRAWFORD: Do you think that assumption was correct, though--that was the only way to get grass roots agricultural support?

DR. COLE: No, I don't think so. I think it was overworked. That you could have appealed in research and development to a wider support of the Valley people than we reached through the Agriculture Program.

DR. CRAWFORD: Do you think that it would have been wiser to do that? I know that is a value judgment.

DR. COLE: I think it would have been wise. I think

part of it would have been Dr. H.A. Morgan's philosophy and that was: When he was developing the University of Tennessee about the only place that he got really strong support was from the Agriculture members in the Valley. While other people in TVA were strongly interested in industrial development, like interest in Alcoa and industries of this type, Dr. H. A. Morgan had a rather strong skepticism toward large corporations including, I think, the Aluminum Company of America.

For instance, he told me one time he had been invited up to the Alumnum Company Clubhouse for a dinner and to spend the night and so forth. And he says, "Bill, I couldn't possibly do this." "Here is one of the largest monopolistic concerns in the country and being a Director of TVA, I cannot go up there and be seen there and be entertained with them."

Now on the other hand, Jim Polk, who was a Director of TVA and helped to work out the current policy between ALCOA and TVA and I think, went to the Aluminum Clubhouse rather regularly and to be entertained. Jim had a completely different attitude towards the large corporations, you see, although he had a very strong interest in agriculture and I think Mr. Lilienthal himself had. I think what you had in Agricultural Division of TVA was people who had come out of land grant colleges who had customarily worked with the Farm Bureau, a conservative group--politically and otherwise--and this was partially responsible for the stance which the TVA Agricultural Division took. It was a good safe orientation for the program.

DR. CRAWFORD: Did you feel that H.A. Morgan's policy was influenced by his agricultural background? Were his views populist toward government, corporations

DR. COLE: What do you mean by populistic?

DR. CRAWFORD: Did he tend to distrust industrial corporations?

DR. COLE: I think he did. On the other hand, one of the strong points of H. A. was he oftentimes held and expressed this that what you want to have in the development of the South was strong wedding between agricultural interests and industrial interests, you see. He expressed this in a document which was called the "Common Mooring", which something has been written about. What he said was this, "The South still has the chance to do the best in rural development and agriculture and at the same time balance out an industrial development, you see." There was a companionship there which I think he was very strong for. On the other hand I always felt that H. A. distrusted very large corporations.

DR. CRAWFORD: I have read the "Common Mooring" book written by someone who knew Dr. Morgan fairly well.

DR. COLE: This was a man who was, I believe, at Harvard at about the time that he wrote this book. I did some writing on the "Common Mooring" one time and I kind of got lost in H. A.'s philosophy.

DR. CRAWFORD: I'm not too sure how clear it was. It seemed to me though, that it had an environmental or ecological consideration.

DR. COLE: Very much so.

DR. CRAWFORD: Perhaps it was far in advance of its time.

DR. COLE: Yes, it was I think. Another thing he argued for was that the "Common Mooring"--this basic interest in the environment--basic interest in the land and basic interest in the resources could be an orientation for the program of many institutions and so forth and would give their programs a great deal of substance. I think he was a man before his time. The fact that I got lost in it is no criticism of Dr. Morgan, but simply the indication that I had the inability to comprehend what he was driving at.

DR. CRAWFORD: You are familiar with the Selznick's book on TVA and the Grass Roots?

DR. COLE: Yes.

DR. CRAWFORD: Do you think the thesis there is basically correct?

DR. COLE: Yes, I think it is basically correct.

I think Selznick overdid it. One of the reasons I think the book is a little hard on TVA was that Selznick himself was not handled very well during his period with TVA. Selznick tended to be pretty critical and as he interviewed people in TVA I think he increasingly became off limits to TVA personnel. The information was passed down that he still should be permitted to use the TVA files. I think he did get his hands on files and people would give him the files.

I rather think the book was a valuable thing to TVA. I don't think it changed TVA policy very much. I think it had the ability of making people in TVA mad at the time. There was the feeling that it was not a constructive kind of book. I'm glad he wrote the book be-

cause there is enough substance in the book to have goaded some change in TVA and perhaps they did make some changes. This business of the grass roots, I've looked at it along, Dr. Crawford, and while H. A. Morgan got into it because he basically believed in it, he won Dave Lilienthal over. This was the policy he had here in the state. He also told me time and again, "Bill, TVA as great as it is, may not last longer than the Roosevelt Administration. Therefore, we ought to use the resources we have to build strength in the region, in the communities, and the local areas so that if TVA does go out of business there will be some roots left there." Also, I will have to agree that the "Grass Roots Approach" is basically a slower approach. This is particularly true of involving person after person on a personal involvement basis. It's faster where a leader can involve a group of people.

On the other hand, I think it was a sound approach and has left behind improved health departments, improved agriculture on the farms of the Valley, and improved local participation in REA and electrification and those things, in the fertilizer industry in bringing a tremendous participation from the farmers on up. I think this is basically a sound approach for a democracy, as compared to a more centralized approach, I think it has been a costly approach in terms of dollars. Well, from the standpoint of our ideology I think it is a sound approach.

I wish it had been worked more in the educational field to involve the people in all aspects of education. You see here we have really lagged. In the development of working cooperatives, in the work of

hydraulic engineering, in the development of electrical engineering in development of concern of conservation in elementary and high schools, we could have had a great deal more involvement.

And I think we could have had a great deal more involvement of the smaller farmer because we found this--here's a guy who is working in industry and he has some cash income and this gives him some flexibility. He can do a much better job in conservation than the little man can who has no industrial job who has precious acres for every cent he can make in corn or wheat or cotton or tobacco or whatever he has and I think he is neglected. This would have gone a long ways in helping to solve some of our Appalachian problems.

I think the people should of been involved in the beginning [such as] coal operators on this strip mining thing. Not because TVA would have bought less coal, but they would have done more to restore the areas in which the coal was mined. This, I think, would have been a terrific thing.

DR. CRAWFORD: Do you see any other ways that TVA could have made a better approach and should have had other alternatives than those criticized by Mr. Selznick?

DR. COLE: Hard to say. One thing I think I mentioned, I think TVA should have required from the land grant colleges better kinds of information than it got--the kind of information it needed really to furnish answers to its problems. I think we could have perhaps done more with cooperatives--cooperative buying and selling--than was done, particularly in the rural areas.

TVA did a good job with electrical cooperatives, but [not with] other kinds of cooperatives.

The Farm Bureau later got into this, but these were not real co-operatives, they were largely selling cooperatives, buying cooperatives. I think if they had maintained their interest in the small farmer which they started out to do, the tools that he could use, agricultural practices that he could use, animals which he could raise, game which he could raise, the whole game thing here in Appalachia, it could have made a very exciting thing. This would have been a good thing. I think they should have encouraged not only the Farm Bureau but the Grange, the Farmers' Union and we should have had all kinds of farmer's organizations in about it because the differences in these organizations is considerably different than the stances and policies that they made. I think instead of just involving farmers in area demonstrations it could have done more to involve all of the people so that you would have had a greater degree of community involvement there than we have. The Selznick criticism has won sympathy and I think it is justified of putting too many eggs in the basket of the land grant colleges and the Farm Bureau.

DR. CRAWFORD: Do you think also that TVA made an error perhaps in getting support for the power program than in other aspects?

DR. COLE: Yes, I think this was true. There was no reason to neglect other aspects of their total obligation to do the job of research and development of the Valley. I know there were legal questions that were raised. Their big jobs were flood control, development of navigation--development

of electricity is in itself a kind of side effect--the recreation industry was one of the great things that they did. No one can perceive the potential of this during the early days of TVA. They didn't talk about it, you see. I think they have worked pretty well with recreation centers of the Valley--with the dock keepers, the tourist development people and those things and I think this has been a substantial thing. The people that I would have liked to have been involved more would have been all classes of people including the poor, the blacks, the industrialists along with the farmers so that you would really have this as community development. The thing that we are getting around to is the poverty program, the things developed lately. I think this would have been a great step. However, it is not too late for this to take place.

DR. CRAWFORD: No. New programs could be developed of course.

DR. COLE: Yes.

DR. CRAWFORD: In the beginning and getting up to the present, how would you rate TVA leadership? At what points would you say they were the strongest?

DR. COLE: I would rate it generally excellent. I think it was strongest with the leadership of Lilienthal, Gordon Clapp, and Red Wagner at the present time. I rate this in this order and I put the Vogel Administration in fourth in leadership. TVA has had some members of the Board who were comparatively small potatoes I think. People that were without vision as

compared with people that might have been appointed to the Board. Some of these have come in through political structure of the South. Otherwise, I want to pay respects to Jim Polk who was one of the really great leaders--who came out of the Senate--out of his experience in Iowa to become a very important leader and member of the Board of TVA. They've had some good Board members. I think they have been extremely fortunate in their Chairmen, and General Managers. Some members of the Board have certainly been the quality that we hoped for, but our leadership has been tremendous.

Then another thing that has been tremendous in TVA from the beginning, and it declines to some extent and wanes to some extent, is the morale of the group. They have had a sense of mission ever since I've known TVA. This has been tremendous. A sense of obligation to the region and it has rubbed off on other people. My dad, I think was the first demonstration farmer in our county. He died when he was 88 and dad hadn't spent a half dozen days or nights away from home in his life. He was community bound. He loved the community and the farm and before he died he used to speak of his obligation to the Tennessee Valley, not just to the county or his farm, but to his region. Another place where you saw this interest was in the rural electrification co-op. Here would be a guy that was appointed to a co-op from one community that competed with another. The first thing you would know they were sitting on a board and had an obligation to the region, a sub-region, to a district, say, of electricity and not in competition with each other. It's been tremendous to see this kind of thing develop, I think. But sense of mission I've never know in this institution here [University of Tennessee], for instance, I don't think they have ever had the sense of application to the State of Ten-

nessee that TVA personnel have had. I has been tremendous.

I want to add one other thing and that is that I think the success of TVA has been partly the law and the structure in which it was framed, and the vision of the people that went into the writing of the Act. This included some of the ideas that President Roosevelt looked forward into that I mentioned to you. But I also think that TVA has been the lucky recipient of historical accidents of one kind or another.

DR. CRAWFORD: What do you mean by that?

DR. COLE: The World War II [brought a] tremendous demand for power. The Cold War thing, the nuclear program, then the conservation program which they were goaded into but which they still could do and, of course, the nuclear power thing. These have fallen into place at one time or another and have been a tremendous asset to TVA. And of course, I personally think it had tremendous beginnings in the support which President Roosevelt launched it, you see. They had men like Norris who were tremendous statesmen, and that's about it.

DR. CRAWFORD: May I ask too about the Herman Finer Study of TVA which was done in the Thirties.

You were acquainted with Herman Finer I believe?

DR. COLE: Herman came here from the London School of Economics where he was in the Political Science field when I became acquainted with him. I think this was

a \$5,000 grant, I could be wrong, from the Social Scientist Research Council to do this study. It was a long term study. It was a study on the disruption in the early Board of TVA in which you had three men starting out together--all of them with tremendous ability--and which the triad split into a diad with Lilienthal and H.A. Morgan on one side and A.E. Morgan on the other. He came here to study the interruption. I guess he studied the official record of the hearings which were held here in Knoxville and then he interviewed a great many people.

This study as I recall--Herman talked to me about it-- really absolved [A.E.]Morgan for much blame in the situation. No one ever questioned Chairman Morgan's patriotism and never questioned his ability in engineering. He did look at regional development through the eyes of an engineer, that is the idea that we could control all the processes all the way to the people. He rather got it when he left here that the statement would never be published because it would be critical of Mr. Lilienthal and H.A.Morgan and supportive of A.E. Morgan. Finer himself was very much impressed with the work that TVA was doing and the idea of TVA and, of course, tried to capture this in the book which he did for the International Labor Office on the transplant ability of TVA. He never, as far as I know, interested himself much more in TVA. He left the London School of Economics and came to Chicago on an unusual kind of fellowship, or an unusual kind of professorship, in which I think he had agreed for a salary for which they would pay him if he made any money from lectures, author's rights he would throw this back to the University. As a result

I think he limited his speechmaking and those kind of things while he was there.

DR. CRAWFORD: Did you have an opportunity to read the report?

DR. COLE: No.

DR. CRAWFORD: Did he discuss it with you?

DR. COLE: No. The only thing he ever told me generally about it was the over-all impression that he couldn't find much in there that merited the President's firing Mr. [A.E.] Morgan from the chairmanship.

DR. CRAWFORD: How would you characterize the major purposes of TVA? Did you see much change developing from the 1930's through the forties?

DR. COLE: Yeah, I do and since the forties, about the aspect of TVA, a regional development planning as it started out. [It] retrogressed into pretty much a power generating agency, I think, with restricted programs only to come out of that phase and to develop into a more of a total environment stance with emphasis on pollution control, control of strip mining, conservation of strip mining areas and everything. I think the TVA has made a kind of complete circle here. They are in an era now here again I don't know how much legal latitude they have, to do a tremendous job in conservation.

DR. CRAWFORD: Is there anything else you would like to add to the account, Dr. Cole?

DR. COLE: I think not. After I read an early draft, I might add some things to it.

DR. CRAWFORD: Fine. Thank you very much.

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